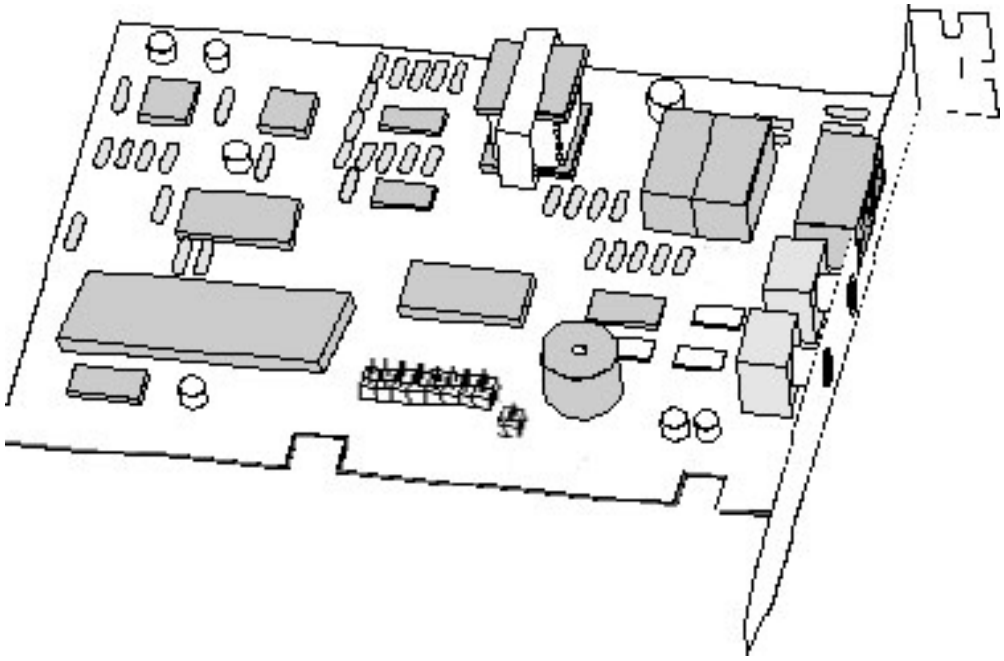
Quick Installation
Reference Card

Zling HCF Modem

PCI PnP Fax Modem
With Voice Speakerphone Functions



- ☑ **Software Upgradeable**
- ☑ **56,000* bps Data Modem (DUAL MODE) Supporting both V.92 and V.90**
- ☑ **14,400 bps Send & Receive Fax**
- ☑ **Supports speeds up to 115,200 bps**
- ☑ **Full Featured Voice Messaging**
- ☑ **Speakerphone Functions**
- ☑ **V.42 Error Correction and V.42bis 4-to-1 Data Compression**

Capable of receiving at up to 56kbps, and send at up to 31.2 kbps. Due to FCC regulations on power output, receiving speeds limited to 53kbps. Actual speed vary. Requires compatible phone line and server equipment. Complies with both the v.90 56k standard and K56Flex technology protocols

Version V1.1

If you have never installed an add-in board in your computer before, please follow the instructions in this section carefully. You may also want to refer to the Installation Chapter in your manual.

What is V.92*?

- Modem on-hold
  It allows you to take incoming call while you are online by putting the modem on hold. This feature requires a call waiting service to be provided by your local phone company.
- Quick Connect
  When the modem is dialing the repeated number, the "handshaking" time will greatly be reduced to less than 15 seconds. Traditional V.90 modems would need more than 20 seconds.
- Increased PCM upstream up to 48Kbps.
  Faster upload speed means faster email attachment sending time.

* Require internet service provider to support V.92 protocol

Technical Specifications:

- Data: ITU-T V.92/V.90, K56Flex, V.34, V.32bis, V.32, V.22bis, V.22, V.21, V.23, Bell 212A/103
- Fax: ITU-T V.17, V.27ter, V.29, V.21 Channel 2, Group 3, EIA Class 1
- Data Compression: ITU-T V.42 LAPM, MNP 5
- Error Correction: ITU-T V.42 LAPM, MNP class 2-4
- AT and extended AT command set compatible
- H.324, V.80 for video conferencing over Internet and point to point connection

Fax/Voice Mail Features:

- Automatically detects and routes incoming voice, fax, and data call to the proper module
- Fax speed ups to 14,400bps Sends and receives faxes to or from any group 3 fax machine, Printer-quality faxing, forwarding
- Schedules fax transmission and multiple recipients
- Convenient voice storage and playback
- Easy voice message retrieval through sound card, or from remote locations
- Password protection for up to 999 mail boxes

Speaker Phone Features:

- Turns your computer into a full-functioned speaker phone (active speakers and microphone required)
- Places and answers telephone calls directly from your computer
- Features mute, redial, hold, pause and clear functions
- Phonebook with speed dialing access
- Software volume control

Safety Precautions

1. Turn OFF the computer before you begin. Also, turn OFF any external devices that are connected to your computer, such as printers.
2. Handle the board gently by the edges. Some of the component leads under the board have very sharp edges and may cause serious injury.
3. To prevent electrostatic discharge damage to the components on your modem, do not remove the modem from the static-shielded bag until you have discharged any static electricity from your body by touching any unpainted surface on the case of your computer.

Necessary Equipment

Make sure that you have all necessary equipment at hand before you begin. You should have:

- The ***Z-Cyber Zling HCF Board***
- A Pentium III - 300 or faster compatible computer with an available PCI expansion slot
- A modular telephone outlet and cable
- A small, flat-blade screwdriver and a small pair of pliers or tweezers
- A telephone set (Optional)
- Shielded PC speakers or headset (required for speaker phone)
- Microphone (required for speaker phone)

Installation Steps

The steps to install your modem are shown in order in this section. For some steps, you may need to refer to your computer's User's Manual.

Selecting the COM Port

The ***Z-Cyber Zling HCF*** is PnP and can use COM ports 1 to 4 and IRQ's 2, 3, 4, 5, 10, 11, 12 & 15. This is selected automatically. There are no hardware jumpers or dip switches to set.

Inserting the Fax/Modem

1. Turn off the power to the computer. Also, turn off any external devices that are attached, such as a printer and monitor.
2. Take out the mounting screws on the back of you computer. Refer to your computer manual if you cannot locate them.
3. Remove the computer cover. Refer to your computer manual if you cannot determine how to remove the cover.
4. Select an empty PCI slot. You may need to remove the metal slot cover first, using a small screwdriver.
5. Discharge any static electricity in your body by touching any bare metal surface on the chassis of the computer and remove

the modem from the static-shielded bag.
6. Press the board firmly into the slot ensuring that the gold tabs on the fax/modem are aligned with the connectors in the slot.
7. Insert the screw and tighten slightly. Check to ensure that the telephone jacks in the back of the modem are unobstructed. If so, then tighten the screw securely.
8. Replace the computer cover.

Connection:

JP1 – Internal sound card connector

- Pin 1 : Speaker Out
- Pin 2-3 : Ground
- Pin 4 : MIC Input

Installing Telephone Lines

The Fax/Modem has two modular telephone jacks on the back of the modem. You will need to connect your Fax/Modem to the wall outlet via a modular telephone cord.
If your wall outlet is not a modular type, you can purchase an inexpensive converter at most electronics or phone stores. It is suggested that you connect your modem to a "*dedicated line*". A dedicated line is a regular phone line that does not go through a switchboard, PBX, etc.

You can also connect a telephone set to your modem, enabling you to use the phone when the modem is not in use. The modem can also be used as an autodialer with your telephone set. It is recommended that you use a single line phone outlet (RJ11). However, you can use a two-line (RJ14) phone line, but the modem will only work on the first line using the center pair of wires.

To connect the telephone lines to the modem follow these steps:

1. Insert one end of the phone line into the jack on the modem labeled **Line**.
2. Insert the other end of the phone line into the phone jack, (usually located on your wall).

If you wish to use a phone set in conjunction with your modem, Please follow these steps:

1. Insert the line from the phone into the jack labeled **Phone**.
2. Make sure that the other end of the phone line is connected to the telephone.

If you wish to use the speakerphone function of your modem:

1. Using a microphone with a 1/8" mono plug, install the plug into the jack labeled **Microphone**.
2. Connect speakers with a 1/8" stereo plug, install the plug into the jack labeled **Speaker**.

Testing

The actual installation of the modem is now complete. Before attempting to use your modem, you should complete the following steps:

1. Before turning the power back on to the computer, check the telephone connection by lifting the telephone handset. You should hear a dial tone. If you don't, check that all phone cords are firmly connected.

2. Turn the computer power back on. Lift the handset of the telephone again to check for a dial tone. Once again, you should hear a dial tone.

3. You've now completed the hardware installation of your modem. From here, you are ready to install the communications software.

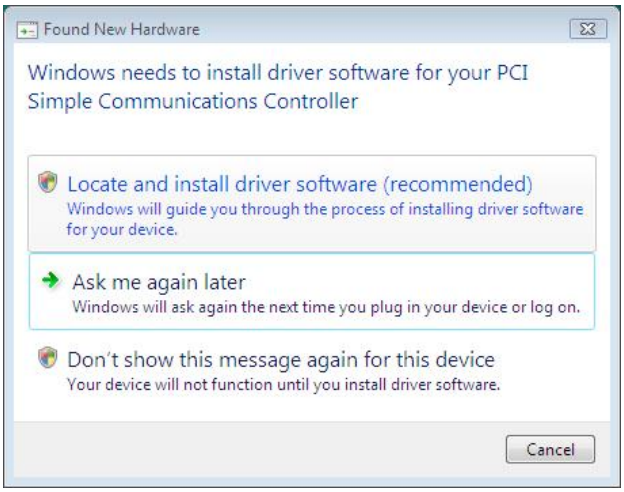
4. Once you've installed your communications software, test the modem according to the instructions in either the hardware or software manual.

Windows Vista (32-bit) driver Installation

1. **REMOVE** any CD driver from the CDROM

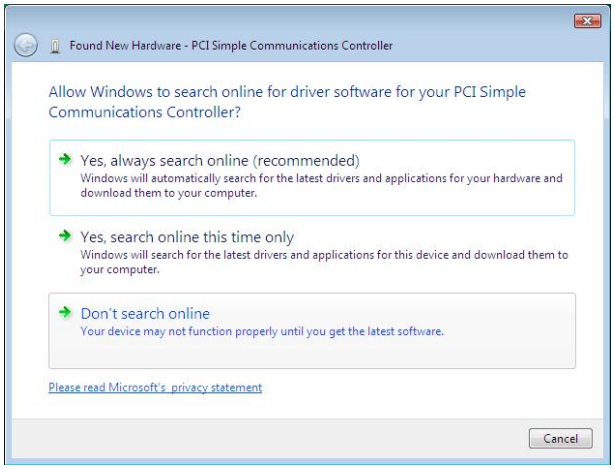
2. Windows Vista automatically detects a new **MODEM** is inserted into the system.

   Select "**Locate and install driver software (recommended)**"

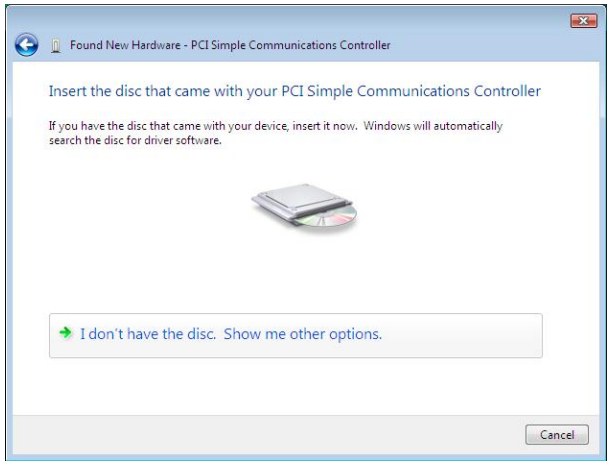

Found New Hardware
Windows needs to install driver software for your PCI Simple Communications Controller
Locate and install driver software (recommended)
Windows will guide you through the process of installing driver software for your device.
Ask me again later
Windows will ask again the next time you plug in your device or log on.
Don't show this message again for this device
Your device will not function until you install driver software.
Cancel

3. Click "Continue" button in "User Account Control" window

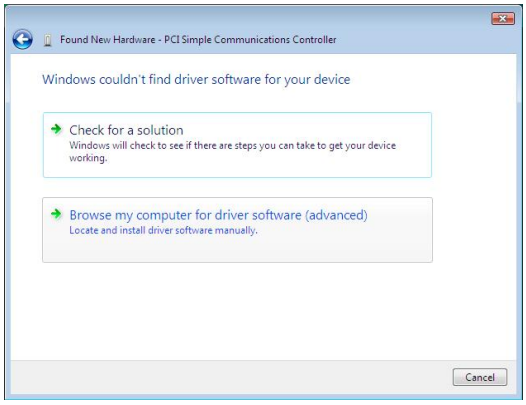
4. Windows want to search driver online, please select "**Don't search online**"


Found New Hardware - PCI Simple Communications Controller
Allow Windows to search online for driver software for your PCI Simple Communications Controller?
Yes, always search online (recommended)
Windows will automatically search for the latest drivers and applications for your hardware and download them to your computer.
Yes, search online this time only
Windows will search for the latest drivers and applications for this device and download them to your computer.
Don't search online
Your device may not function properly until you get the latest software.
Please read Microsoft's privacy statement
Cancel

5. Please select
   "**I don't have the disc. Show me other options**"


Found New Hardware - PCI Simple Communications Controller
Insert the disc that came with your PCI Simple Communications Controller
If you have the disc that came with your device, insert it now. Windows will automatically search the disc for driver software.
I don't have the disc. Show me other options.
Cancel

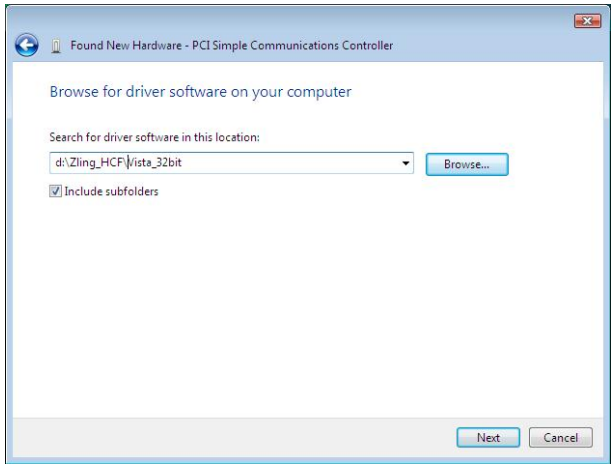
6. Select “Browse my computer for driver software (advanced)


Found New Hardware - PCI Simple Communications Controller
Windows couldn't find driver software for your device
Check for a solution
Windows will check to see if there are steps you can take to get your device working.
Browse my computer for driver software (advanced)
Locate and install driver software manually.
Cancel

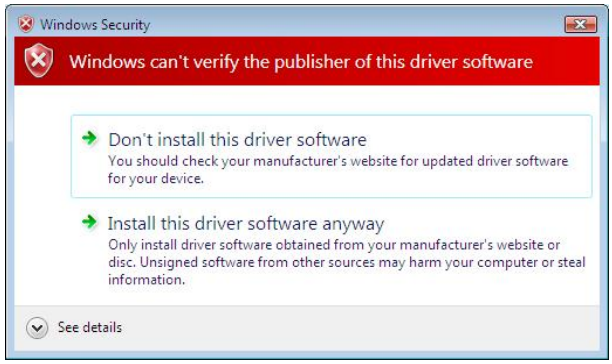
7. Insert the Communication CD driver in the CDROM

   Press “Browse” button and select path “**d:\Zling_HCF\Vista_32bit**”

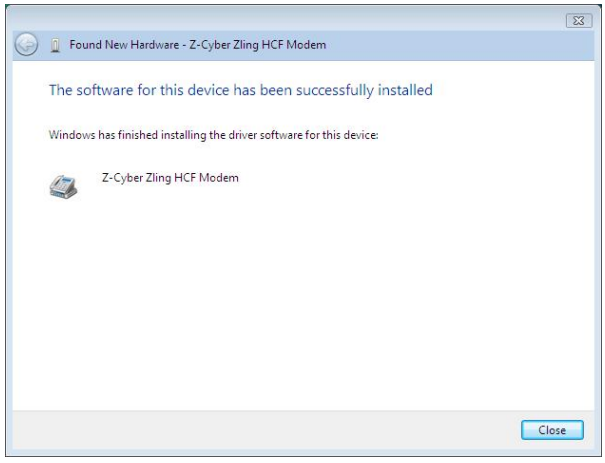
   where d: is the driver letter of the CD/DVD rom drive



8. Select “**Install this driver software anyway**”


Windows Security
Windows can't verify the publisher of this driver software
Don't install this driver software
You should check your manufacturer's website for updated driver software for your device.
Install this driver software anyway
Only install driver software obtained from your manufacturer's website or disc. Unsigned software from other sources may harm your computer or steal information.
See details

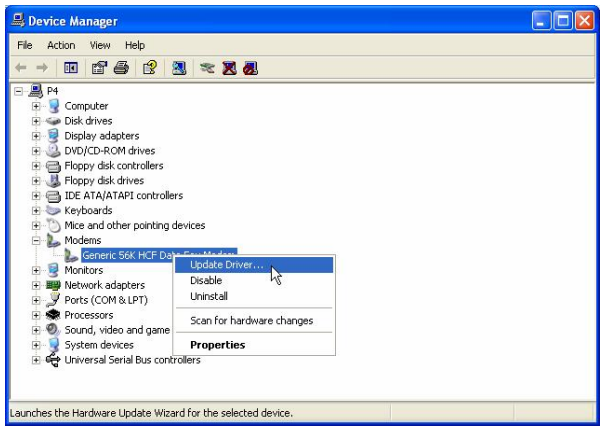
9. Now, the Zling HCF Modem driver is installed successfully. Press “Close” button to finish


Found New Hardware - Z-Cyber Zling HCF Modem
The software for this device has been successfully installed
Windows has finished installing the driver software for this device:
Z-Cyber Zling HCF Modem
Close

Windows XP Driver Installation (V.90)

Since Windows XP will automatically install the generic modem driver, you must go to Control Panel>System>Hardware>Device Manager.

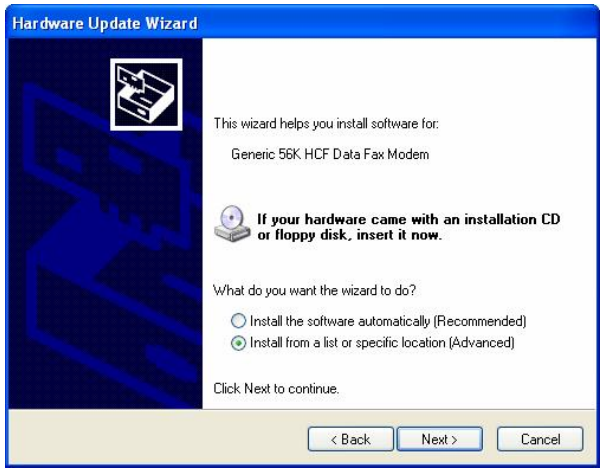
1. Right click the “Generic 56k HCF Data/Fax modem” and select update driver



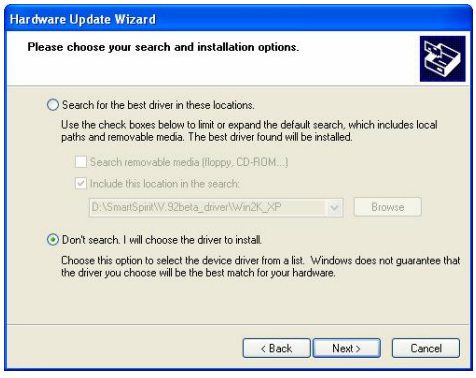
2. Select “No, not this time” and click “Next”

Hardware Update Wizard
Welcome to the Hardware Update Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel

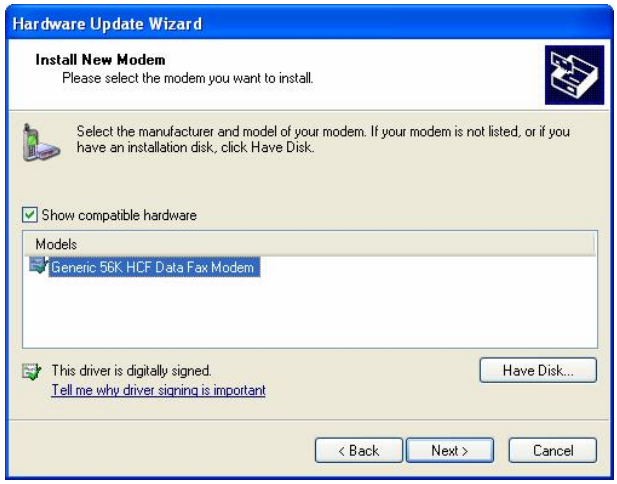
3. Select “Install from a list or specific location (Advanced)” and then click “Next” button


Hardware Update Wizard
This wizard helps you install software for:
Generic 56K HCF Data Fax Modem
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

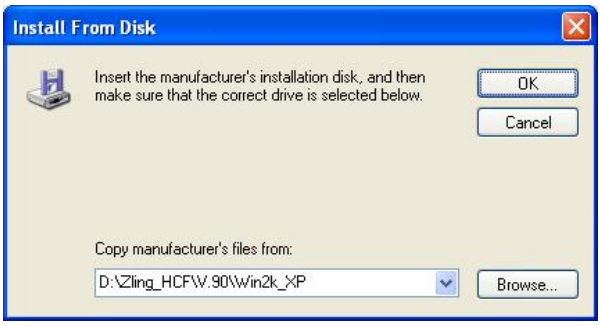
4. Select “Don’t search. I will choose the driver to install”

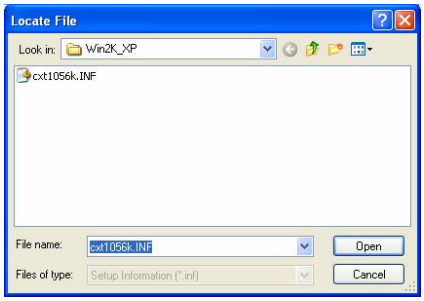

Hardware Update Wizard
Please choose your search and installation options.
Search for the best driver in these locations.
Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
Search removable media (floppy, CD-ROM...)
Include this location in the search:
D:\SmartSpirit\V.92beta_driver\Win2K_XP
Browse
Don't search. I will choose the driver to install.
Choose this option to select the device driver from a list. Windows does not guarantee that the driver you choose will be the best match for your hardware.
< Back
Next >
Cancel

5. You will find the generic driver on the list. Click “Have Disk…” to find the driver from the CD-ROM. Then click “Next” button

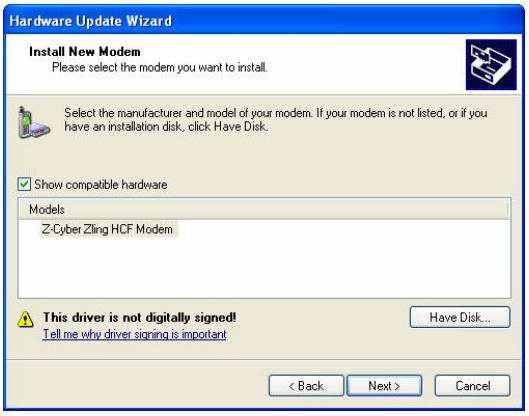

Hardware Update Wizard
Install New Modem
Please select the modem you want to install.
Select the manufacturer and model of your modem. If your modem is not listed, or if you have an installation disk, click Have Disk.
Show compatible hardware
Models
Generic 56K HCF Data Fax Modem
This driver is digitally signed.
Tell me why driver signing is important
Have Disk...
< Back
Next >
Cancel

6. Click “Browse”. Search driver from your CD-ROM drive and select ***D:\Zling_HCF\V.90\Win2K_XP*** to open the “cxt1056k.INF” file. (Note: Replace D: with the drive letter of your CD-ROM drive if necessary.)



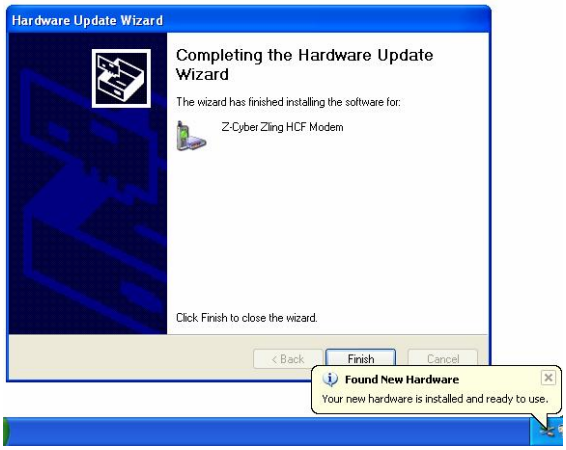


7. Select “Z-Cyber Zling HCF Modem” and click “Next”. Then, click “Continue Anyway” to install.


Hardware Update Wizard
Install New Modem
Please select the modem you want to install.
Select the manufacturer and model of your modem. If your modem is not listed, or if you have an installation disk, click Have Disk.
Show compatible hardware
Models
Z-Cyber Zling HCF Modem
This driver is not digitally signed!
Tell me why driver signing is important
Have Disk...
< Back
Next >
Cancel

Hardware Installation
The software you are installing for this hardware:
Z-Cyber Zling HCF Modem
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

8. Click “Finish” to complete the installation, and click “Yes” to restart your computer.


Hardware Update Wizard
Completing the Hardware Update Wizard
The wizard has finished installing the software for:
Z-Cyber Zling HCF Modem
Click Finish to close the wizard.
< Back
Finish
Cancel
Found New Hardware
Your new hardware is installed and ready to use.

Windows 95 / 98 / 98SE / ME / 2000 / XP 64-bit / Vista 64-bit Driver Installation

All steps are much easier than Windows XP Driver Installation. Choose specific locations for the drivers as follows once your computer detects a new hardware:

For V.90

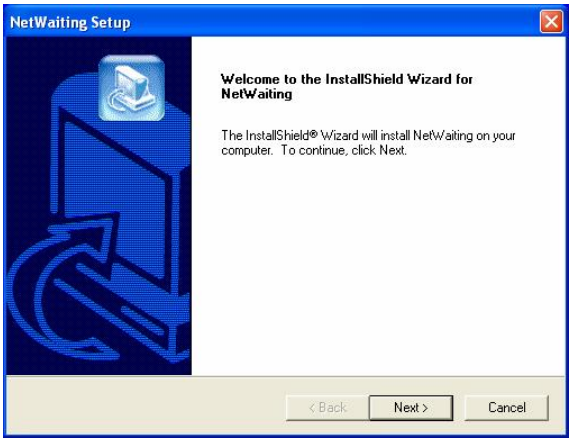
Windows 95 / 98/98SE	D:\Zling_HCF \V.90\Win95_98
Windows ME	D:\Zling_HCF \V.90\Win_Me
Windows 2000/XP (32-bit)	D:\Zling_HCF \V.90\Win2k_XP
Windows XP (64-bit)	D:\Zling_HCF \V.90\XP_64bit
Vista (32-bit)	D:\Zling_HCF \V.90\Vista_32bit
Vista (64-bit)	D:\Zling_HCF \V.90\Vista_64bit

(Note: Replace D: with the drive letter of your CD-ROM drive if necessary.)

NetWaiting Installation

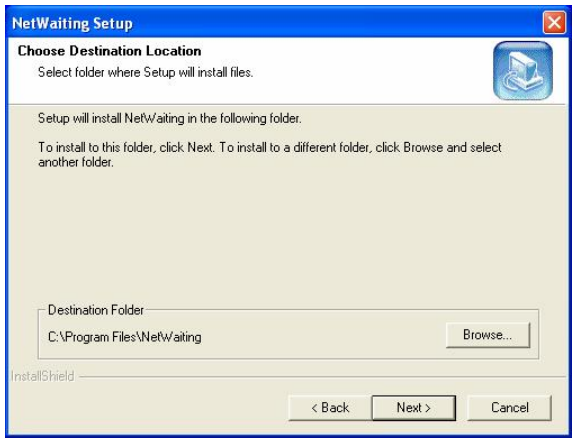
(Call Waiting feature only works under V.92)

1. Search CD-ROM from your CD-ROM drive and select D:\ Zling_HCF \Netwaiting1.05 (Note: Replace D: with the drive letter of your CD-ROM drive if necessary.). Run the "Setup.exe" to start the installation.


NetWaiting Setup
Welcome to the InstallShield Wizard for NetWaiting
The InstallShield® Wizard will install NetWaiting on your computer. To continue, click Next.
< Back
Next >
Cancel

2. Click "Yes" for License Agreement. Under "Choose Destination Location", click "Next" to continue.

NetWaiting Setup
License Agreement
Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
License
This is a local agreement between you (either an individual or an entity), the end user, and BVRP Software S.A. (BVRP). If you do not agree to the terms of this agreement, promptly return the disk package and accompanying items (including written materials and binders or other containers) to the place you obtained them for a full refund.
BVRP SOFTWARE S.A. SOFTWARE LICENSE
1.GRANT OF LICENSE.
This BVRP Software License Agreement ("License") permits you to use one copy of the
Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install NetWaiting, you must accept this agreement.
InstallShield
< Back
Yes
No


NetWaiting Setup
Choose Destination Location
Select folder where Setup will install files.
Setup will install NetWaiting in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\NetWaiting
Browse...
InstallShield
< Back
Next >
Cancel

3. Click "Next" button under "Select Program Folder", and then click "Finish" to complete the installation.

Common Problems and Their Solutions

Problem: Modem answers incoming calls and then returns to the on-hook condition, disconnecting the caller.
This occurs most often when connecting to a UNIX system. In most case, the host does not prefer to see any result or command echo codes. If this is the case, the codes can be disabled by adding E0 Q1 to the modem configuration string.

Problem: No echo from modem
This is normally caused by an I/O address or IRQ conflict. Verify that the COM Port is not in use by any other serial device and if necessary use another COM Port or I/O address setting.

Problem: The modem dials and appears to complete the connection, but the communications software does not enter the correct mode. (The screen remains blank.) There may be an I/O conflict (See the solution for the previous problem, "No echo from modem").

The Result Codes may have been disabled by the software configuration set up. Check if Q1 is in the configuration or initialization string. If so, change it to Q0.

Your software may require numeric result codes rather than verbal result codes. Use either V0 for numeric result codes or V1 for verbal result codes in your initialization or configuration string. Some software require full extended result codes (ie. CONNECT 33600 instead of CONNECT). This can be controlled by the Xn command. X0 sends a summarized code (CONNECT) and X4 sends a full extended code (CONNECT 33600).

Problem: The modem does not auto answer.
The auto answer mode is determined by the S0 register. If S0 has been set to 0, the modem will not answer. Assign another value to S0 by entering the following command S0=n, where n=the number of rings to occur before the call is answered (ATS0=2, the modem answers after two rings).

Problem: The modem always answers the phone
Set the S0 register to 0. ATS0=0

Problem: The communications software displays, "No Dialtone".
Make sure that your phone cable is working properly and that it is firmly seated to the phone socket at your phone jack and in the rear panel of the modem.

Problem: A high pitched squeal is emitted from the external speakers..
This phenomenon is "feedback" and occurs when the microphone is pointed at the external speaker or is close enough to pick up the speaker output. This may be remedied by using a unidirectional microphone, making sure that it is pointed away and as far from the speaker as functionally possible. Another option is to use a headset with an attached microphone.

On-line Technical Support

If you have access to the World Wide Web be sure to visit the Z-Cyber home page at:

http://www.z-cyber.net/support